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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,815	11/16/2001	Akemi Sanada	NIT-308	7646

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EXAMINER

ZEENDER, FLORIAN M

ART UNIT	PAPER NUMBER
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3627

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,815

Applicant(s)

SANADA ET AL.

Examiner

F. Ryan Zeender

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 November 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The "Preliminary Amendment" received 11/16/01 has been entered.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15, drawn to a method for renting and charging a storage system, classified in class 705, subclass 32.
- II. Claims 16-20, drawn to a storage controller connected to a plurality of divided storage devices for controlling data transfer from a host computer to the storage device, classified in class 700, subclass 14.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus could be used for determining how much storage a company needs to perform a specific task.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention:

- I) The specie depicted by claims 16-17,

II) The specie depicted by claims 18-19,

III) The specie depicted by claim 20.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim appears to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. Shrinth Malur, Reg. No. 34,663, on 4/24/03, a provisional election was made without traverse to prosecute the invention depicted by method claims 1-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor grammatical and spelling errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requires of this title.

Claims 1-4, and 6-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claim 1 only recites an abstract idea. The recited steps of merely reading an used volume from a use management table held in a storage system, and sending the read used volume from the storage system to a charging system does not necessarily apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to select an insurance policy over another.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case meets these necessities in that the claimed invention produces knowledge useful in renting and charging for used volume in a storage system.

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1-4 and 6-14 are deemed to be directed to non-statutory subject matter.

Drawings

The drawings are objected to because in the title of Fig. 5, it appears "USER'S" should be --USERS--. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, lines 9-11, the terminology, "a charged fee of said user from said initial introduction volume and said added volume based on said user identification ID" is awkward/unclear language in that one cannot determine exactly what the user is being charged for.

In claims 12 and 13, "said starting information" lacks antecedent basis.

In each of claims 6-9: "the added volume range" lacks antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford '943 (*See, for example, Cols. 57-60*).

Crawford discloses or inherently teaches all the limitations of the claims except the specific teaching of the use management table (See *Col. 56, line 57*^{59 ?}) being held in the storage system; updating an inputted used volume by users;

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Crawford to have the use management table in the storage system; in order to provide a single system in one location and thus limit potential system service costs.

Re claim 2: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to have an inputted used volume updated by users, in order to allow for a user to charge himself/herself for services received and thus provide for an "honor" type charging system, as is often done in business.

Re claims 4-13 (as best understood): It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to charge the user for the added volume, in addition to an initial volume, as this represents the total volume used by the user.

Re claim 6-9: The means for calculating the charging of the used volume would have been an obvious design choice to one of ordinary skill in the art at the time of the invention in order to produce a final desired result.

Re claims 12-13: The point at which charging starts would have been an obvious design choice to one of ordinary skill in the art at the time of the invention in order to produce a final desired result, such as providing a discount to certain loyal customers.

Re claim 14: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to send the read unused volume to the charging system, as this information would involve a simple calculation from the total volume available, and would provide a safety means for ensuring that a user is not charged for a "used" volume that is in excess of the total volume available.

Re claim 15: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to charge a lower fee for doubled (backup) data, as the service of providing a backup is a security feature that does not reflect the "use" of the storage system. A "double" is often given a discount in business (i.e., "2 or 1").

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasebe et al. teach a similar system for charging for software usage.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Ryan Zeender whose telephone number is (703) 308-8351. The examiner can normally be reached on Monday-Friday, 8am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Olszewski can be reached on (703) 308-5183. The receptionist's phone number for the Technology center is (703) 308-1113.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

 4/28/03

F. Zeender
Patent Examiner, A.U. 3627
April 28, 2003